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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/273,833 | 03/22/1999 | RYOHEI KUKI | TI-28612 | 7627 |

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EXAMINER

KUMAR, PANKAJ

ART UNIT PAPER NUMBER

2631

DATE MAILED: 04/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/273,833

Applicant(s)

KUKI ET AL.

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/22/1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-4, 5, 6, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, 7, 9, 12, 14, 16, 18, 22, 24, 25, 28, 29, respectively, of copending Application No. 09/229945. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons below.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Regarding claim 1, this application added the following in the preamble: correcting media noise errors. It is inherent for claim 1 of the copending application to include this.

5. Regarding claim 1, this application is substantially the same except for the following change to the body: the application added "adding a predetermined value to the filtered output signal when a predetermined error event pattern due to media noise occurs in said recovered data

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output signal;" and removed "generating an error event pattern indicating signal ..." Adding a value due to an error event causes a signal. Thus generating a signal due to an error is the same as adding a value due to an error.

6. Regarding claims 2-6 in this application, they are exactly the same as the copending application as respectively ordered above.

7. Regarding claim 12:

- a. equalization was removed – it would be obvious to do the remaining steps without an equalizer
- b. detecting from a transducer head was added – this is inherent to both applications.
- c. adding a value vs. generating a signal was discussed above.

8. Regarding claims 13-15 in this application, they are exactly the same as the copending application as respectively ordered above.

9. Claims 18-23 are similarly rejected for double patenting.

10. Claims 7-11, 16-17, 24-25 are objected to for being dependent on rejected claims cited for double patenting.

11. Drawings

12. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: on page 12 of the specification, number 30 is mentioned as being part of fig.4 but there is no 30 in fig. 4. A proposed drawing correction or corrected drawings are required in reply to the Office action to

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avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

13. *Specification*

14. The disclosure is objected to because of the following informalities:

d. There is a period missing at the end of page 12.

e. On page 2 line 5, the word "reduced" should be changed to "increase" since we want to increase the SNR to obtain a reduced (improved) BER.

15. Appropriate correction is required.

16. *Information Disclosure Statement*

17. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

18. *Claim Rejections - 35 USC § 112*

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

20. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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21. Claims 1-17, 19-20, 22, 23, 24, 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
22. Claim 1 recites the limitation that the method produces "corrected recovered data output signal" in line 2 but also has "said recovered data output signal" in line 8 as the input. Since there is no mention of a feedback of the corrected recovered data output signal, there is insufficient antecedent basis for this limitation in the claim.
23. Claim 12 recites the limitation "said recovered data output signal" in lines 13, 20. Based on the explanation in claim 1, there is insufficient antecedent basis for this limitation in the claim.
24. Claims 2-11 are rejected since claim 1 is rejected.
25. Claims 13-17 are rejected since claim 12 is rejected.
26. Claims 2, 22 are rejected since it recites the limitation "EPR4" which needs to be defined in the claims at least once as "extended partial response class 4"
27. Claims 3, 23 are rejected since it recites the limitation "EEPR4" which needs to be defined in the claims and the specification.
28. Claims 7-11, 16-17, 24-25 are rejected since "X" needs to be defined at least once in the claims as "either a 1 or a 0"
29. Claim 12 is rejected since it recites the limitation "the filtered output signal" in line 22. There is insufficient antecedent basis for this limitation in the claim.
30. Claims 4, 5, 14, 15, 19, 20 are rejected since these claims and the specification do not define how $ex=+(-1)$ differs from $ex=+(-1-1)$ nor is there an explanation of what these mean.

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31. Claims 10, 11, 16, 17, 24, 25 are rejected since they have tables which render the claim to be indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Conclusion


32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 5,961,658; 6,052,248; and 6,185,175.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on about 9:00 AM to 7:30 PM Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

PK
April 16, 2002


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 4/16/02